National Science Foundation

The Division of Chemistry (CHE) Reviewer Database

Privacy Impact Assessment

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Revisions

Revision Number	Author	Date	Description
<Direction: Begin revision history after first, non-draft release.>		*<Sub: Date in the format month day, year>*	

1. BACKGROUND

The Privacy Impact Assessment (PIA) is a vehicle to address privacy issues in information systems. The PIA template establishes requirements for addressing privacy during the information systems development process; it defines and documents the privacy issues a project must address and outline; and serves as part of the Certification and Accreditation (C&A) process for a NSF General Support System (GSS) or a Major Application (MA).

1.1 Organizational Background

The Directorate for Math and Physical Sciences, Division of Chemistry is responsible for the reviewer database. The mission of the Division of Chemistry is to promote the health of academic chemistry and to enable basic research and education in the chemical sciences. More information on the Division can be found at http://www.nsf.gov/div/index.jsp?div=CHE. For this particular database, which is a collection of potential proposal reviewers, the stakeholders are the Division of Chemistry Program Officers and any member of the chemistry community who may be interested in becoming a proposal reviewer. The website where chemists can learn about becoming a reviewer is located at http://www.nsf.gov/mps/che/reviewer/reviewer_info.jsp.

2. SCOPE

Protecting an individual's right to privacy is predicated on various Federal laws, directives, and standards; the overarching Federal laws being the Privacy Act of 1974 and the more recent E-Government Act of 2002. Federal guidance requires that, where possible, the PIA process be integrated into the GSS/MA life cycle. Therefore, this PIA is base-lined using instruction from NIST SP 800-64, *Security Considerations in the Information System Development Life Cycle* and other Federal guidance.

3. ENVIRONMENT

A critical component of completing the C&A process is categorizing the information type(s) that the GSS or MA processes. An information type is defined as *"a specific category of information (e.g., privacy, medical, proprietary, financial, investigative, contractor sensitive, security management), defined by an organization or in some instances, by a specific law, Executive Order, directive, policy, or regulation*[1]." Some NSF GSSs/MAs process privacy information. Thus, this PIA serves to determine to what extent this privacy information must be adequately protected.

NSF's Division of Chemistry has developed a Microsoft Access database, which is filled with information from the NSF ReportDB and supplemented with information on research interests and expertise that is supplied by an individual's input to a web form. From the web form, an individual electronically submits information concerning their research areas. The Chemistry Reviewer DB takes this submitted reviewer-specific information, like expertise and research interests and matches it up with the individuals characteristics, like name and institution, already

[1] FIPS 199, Standards for Security Categorization of Federal Information and Information Systems, December 2003

in NSF's ReportDB. Data from these two sources, the online form and the NSF Report DB, is then presented in a restricted Access DB in the Chemistry Division that is helpful to CHE Program Officers/Directors with their selection of potential reviewers/panelists.

4. PRIVACY IMPACT ASSESSMENT CRITERIA

The following sections contain the appropriate questions that are used to collect the required GSS/MA information. The NSF Privacy Officer and other reviewing officials will analyze the results to ensure that an individual's personal identifiable information is adequately secure. The completed PIA will be forwarded to the appropriate individuals for review, signature, and approval. Once approved, the PIA will be included as an appendix in the GSS/MA system security plan.

4.1 Data in the System

The sources of the system information are an important privacy consideration. The information becomes especially important if the data is gathered from other than NSF records. Information collected from non-NSF sources should be verified, to the extent practicable, for accuracy, that the information is current, and the information is complete. Accurate information is important if the information will be used to make determinations about individuals.

Privacy Criteria	Descriptive Response
1. Provide a general description of the information type (i.e., persons name, SSN, etc.) to be collected or processed by the GSS or MA or reference *the NSF Information Categorization and Sensitivity Assessment.*	Required information: Name, address, place of employment and position. Optional information: Mentors (for Conflict of Interest), publications list, research summary, list of expertise (as defined on the departmental webpage), gender, race and ethnicity.
2. What are the sources of the information in the system? (Note: This is an important privacy consideration if the data is gathered from other than NSF records).	The information is provided directly from the external users (i.e. scientists, educators, technology experts, research administrators) over the public internet. Data elements such as, proposals that have been handled by the individual reviewer, details of the reviews made of those proposals, and details of the panels the individual has been part of, are extracted from the NSF Report database.
3. What NSF files and databases are used?	The Division of Chemistry has developed a Microsoft Access database that stores information, referenced in question 1 that was supplied from external users over the public internet. This Access database, referred to throughout as the Chemistry Reviewer DB, supplements information missing

Privacy Criteria	Descriptive Response
	from the NSF Report DB.
4. What other Federal Agencies, if any, are providing data for use in the system?	Other Federal agencies do not input data.
5. From what other third party sources will data be collected?	The Chemistry Reviewer DB does not collect data from other third party sources.
6. What information will be collected from the employee?	The Chemistry Reviewer DB does not collect information from NSF employees while employed at NSF.
7. If data is collected from sources other than NSF records, how is it being verified for accuracy? *(Note: This is especially important if the information will be used to make determinations about individuals).*	The Chemistry Reviewer DB does not collect information from any sources other than those mentioned in question number two above. Program Officers and/or Science Assistants may use NSF Report DB and/or information from other sources, like university websites, to verify the authenticity of submitted data. This information is used to aid NSF Program Officers/Directors in their determinations of whether an individual is eligible for being a proposal reviewer/panelist.
8. How will data be checked for completeness?	In order for a potential reviewer to submit data online, the web form requires that all required data elements are entered in the form or the form will not allow submission. After submission, the data is validated via the method outlined in question number 7.
9. Is the data current? How do you know? What mechanisms were used to validate the data's currency?	At the time of initial submission of an online form, data from the webpage is stored in the database, it is time-stamped and that date/time is displayed with the data. After the initial form has been submitted, public users cannot update their data directly. An individual may submit a new form or email the Chemistry webmaster to update their information. The data with the most current timestamp will be kept in the database.
10. What data elements are described? What level of detail is used in documenting data elements?	Only those data elements, which are not maintained in ReportDB, are described: publications and research are free-text, expertise codes are selected from a departmentally approved list. The Chemistry Reviewer DB that Program Officers use displays six sections coming from six different tables and

Privacy Criteria	Descriptive Response
	one working list (coming from another two tables). REVR table - Biographic and contact fields. Proposal & Review tables - proposals reviewed (number, rating, dates). EXPERTISE table - Areas of Expertise, as gathered from proposals reviewed previously and self-evaluated web input. WebX data, in REVR - Data collected from the Web form. NOTES table - Working notes added by individual program directors.
11. If data elements are documented, what is the name of the document?	User Manual.doc on the MPS/CHE share under the folder titled ReviewerDB\RevrDB.

4.2 Access to the Data

Who has access to the data in a system must be defined and documented. Users of the data can be individuals, other systems, and other agencies. Individuals who have access to the data can be system users, system administrators, system owners, managers, and developers. When individuals are granted access to a system, their access should be limited, where possible, to only that data needed to perform their assigned duties. If individuals are granted access to all of the data in a system, procedures need to be in place to deter and detect browsing and unauthorized access. Other systems are any programs or projects that interface with the system and have access to the data.

Privacy Criteria	Descriptive Response
1. Who has access to the data in the system? (Note: Users of the data can be individuals, other systems, programs, projects, or other agencies. Individuals who have access to the data can be system users, system administrators, system owners, managers, and developers).	Access to the Chemistry Reviewer database is restricted to those NSF employees who have a business need to access the data and have had access granted by the database administrator. At that point, a user name, the NSF lan id, is required to login to the system. Access to the NSF Report DB is controlled and managed by the NSF Division of Information Services (DIS).
2. Where individuals are granted access to all of the data in a system, what procedures are in place to deter and detect browsing and unauthorized access?	Access to the Chemistry Reviewer database is restricted to those NSF employees who have a business need to access the data and have had access granted by the database administrator. At that point, a user name, the lan id, is required to login to the system. System Administrators have full access to the system, but they only access the system when asked to do so or when it is part of their job duties. Access to the NSF Report DB is

Privacy Criteria	Descriptive Response
	controlled and managed by the NSF Division of Information Services (DIS). The Chemistry Reviewer DB does not have a log or track a user's usage.
3. When individuals are granted access to a system, how is their access being limited, where possible, to only that data needed to perform their assigned duties?	In order to access the Chemistry Reviewer DB, a user must first be authorized access from the Chemistry DD or EO. Users have access to only those functions needed to conduct their job responsibilities.
4. How or what tools are used to determine a user's data access?	For the CHE Reviewer DB, a user must have their name on a user access table in the Chemistry Reviewer DB and then insert a valid user name at login.
5. Describe the criteria, the procedures, the controls, and the responsibilities in place regarding the manner in which data access is documented.	The Chemistry Reviewer DB is only available on the MPS/Division of Chemistry share. Control of access to the system is two-fold. One, a user is required to have logged with their NSF lan name and password to get on the NSF domain to get to the Chemistry Reviewer DB. Once on a NSF Chemistry computer, only authorized users may access the Chemistry Reviewer DB system via a login screen. No log is maintained of specific records retrieved in the Chemistry Reviewer DB.
6. Do other systems share data or have access to data in this system? If yes, explain.	No other systems have access to data or share data with the Chemistry Reviewer DB.
7. Who has the responsibility for protecting the privacy rights of the individuals affected by any system interface?	Users of the Chemistry Reviewer DB are required to use the data in an ethical manner and only for job related functions.
8. Will other agencies share data or have access to data in this system?	NSF only, no other federal agencies will have access to the system.
9. How will the NSF use this data?	Program Officers/Directors use this CHE Reviewer DB as an aid in the process of building panel invitation lists based on the match of proposal characteristics and the expertise of the potential reviewers.
10. Who is responsible for assuring proper use of the data?	Users of the Chemistry Reviewer DB are required to use the data in an ethical manner and only for job

Privacy Criteria	Descriptive Response
	related functions.
11. How will the system ensure that agencies only get the information they are entitled to?	External agencies do not have access to the database information.

4.3 Attributes of the Data

When requirements for the data to be used in the system are being determined, those requirements must include the privacy attributes of the data. The privacy attributes are derived from the legal requirements imposed by the Privacy Act of 1974. First, the data must be *relevant and necessary* to accomplish the purpose of the system. Second, the data must be *complete, accurate and timely*. It is important to ensure the data has these privacy attributes in order to assure fairness to the individual in making decisions based on the data.

Privacy Criteria	Descriptive Response
1. Explain how the use of the data is both relevant and necessary to the purpose for which the system is being designed?	Program Officers/Directors use this CHE Reviewer DB as an aid in the process of building panel invitation lists based on the match of proposal characteristics and the expertise of the potential reviewers.
2. Will the system derive new data or create previously unavailable data about an individual through aggregation for the information collected?	The database does not derive or create new data about an individual through aggregation.
3. Will the new data be placed in the individual's record?	No, information collected from the web form is not kept in the official NSF record for individuals. However, information from the web form, such as expertise and research interests, is kept in the Chemistry Reviewer DB for Chemistry Program Officers/Directors to access.
4. Can the system make determinations that would not be possible without the new data?	The Chemistry Reviewer DB aids the process of determining an individual's eligibility to become a reviewer/panelist.
5. How will the new data be verified for relevance and accuracy?	Program Officers and/or Science Assistants may use NSF Report DB and/or information from other sources, like university websites, to verify the authenticity and accuracy of submitted data.

Privacy Criteria	Descriptive Response
6. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	Data is not being consolidated.
7. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain	Data is not being consolidated into any other systems.
8. How will the data be retrieved? Can the data be retrieved using a personal identifier (i.e., name, address, etc.)? If yes, explain.	Data can be retrieved by any of the fields, outlined in 4.1 question number 1, in the Chemistry Reviewer DB. An Access database displays all the data based on query of any available field.
9. What are the potential effects on the due process rights of individuals with respect to the following: • Consolidation and linkage of files and systems; • Derivation of data; • Accelerated information processing and decision-making; • Use of new technologies?	The data fields from PARS ReportDB and the fields from the web form are copied directly into the CHE database and are not combined in any way to inform new data fields. The CHE database application does not link to any other databases, to any external database, or to any other applications or systems. There is neither derivation of data nor use of new technologies.
10. How will these affects be mitigated?	There are no affects needing mitigation.

4.4 Maintenance of Administrative Controls

Automation of systems can lead to the consolidation of processes, data, and the controls in place to protect the data. When administrative controls are consolidated, they should be evaluated so that all necessary controls remain in place to the degree necessary to continue to control access to and use of the data.

Data retention procedures should be documented. Data retention procedures require review to ensure they meet statutory requirements. Rules must be established for the length of time information is kept and for assuring that it is properly eliminated (i.e., archived, deleted, etc.) at the end of that time.

The intended and potential monitoring capabilities of a system must be defined and safeguards must be installed to ensure privacy and prevent unnecessary intrusion.

Privacy Criteria	Descriptive Response
1. Explain how the system and its use will ensure equitable treatment of individuals.	This is a voluntary system in which an individual directly provides their personal information so that

Privacy Criteria	Descriptive Response
	they can potentially be contacted at a later date. The website advises the potential user the following, "the National Science Foundation reserves the right to choose reviewers. While we are unable to assure you that you will be asked to review proposals, we do attempt to call upon as many qualified reviewers as possible, and we try to limit the number of requests that we make to any single individual, recognizing the many demands our reviewers have on their time."
2. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	The system is operated and maintained at one location, the NSF headquarters office in Arlington, VA.
3. Explain any possibilities of disparate treatment of individuals or groups.	The system does not create possibilities for disparate treatment of individuals or groups.
4. What are the retention periods of data in this system?	The Chemistry Reviewer DB retains data for an unlimited period of time.
5. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	The Chemistry Reviewer DB retains data for an unlimited period of time.
6. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	It is voluntary submission of information from the individual. There are no formal checks to see if a person has entered their information correctly. There are no time limits.
7. Is the system using technologies in ways that NSF has not previously employed? How does the use of this technology affect individual's privacy?	The system is not using new technologies that NSF has not previously employed. There is no affect on individual privacy.
8. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	The system does not provide identification, location, or monitoring of individuals.
9. Will this system provide the capability to identify, locate and monitor groups of people? If yes explain.	The system does not provide the capability to identify, locate, or monitor groups of people.
10. What controls will be used to prevent unauthorized monitoring?	The system does not provide the capability to identify, locate, or monitor groups of people.
11. Under which System of Record notice does	Systems of Records, NSF-50, "Principal

Privacy Criteria	Descriptive Response
the system operate? Provide number and name.	Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records, " 69 Federal Register 26410 (May 12, 2004).
12. If the system is being modified, will the System of Record require amendment or revision? Explain	The Privacy Act System of Record does not require revision.

Additional Assistance

For additional assistance with completing this assessment, you may contact NSF DIS Security at x-8341.

Review Authority

Ensure that the appropriate signatures are documented prior to forwarding to the NSF Privacy Officer

System Owner Review

Date: _____Name:_____

Comments:

Program Manager Review

Date: _____Name:_____

Comments:

NSF Privacy Act Officer

Date: _____Name:_____

Comments:

Chief Privacy Officer

Date:_____Name:_____

Comments:

Return Copy to GSS/MA Owner to be included as an appendix to the System Security Plan